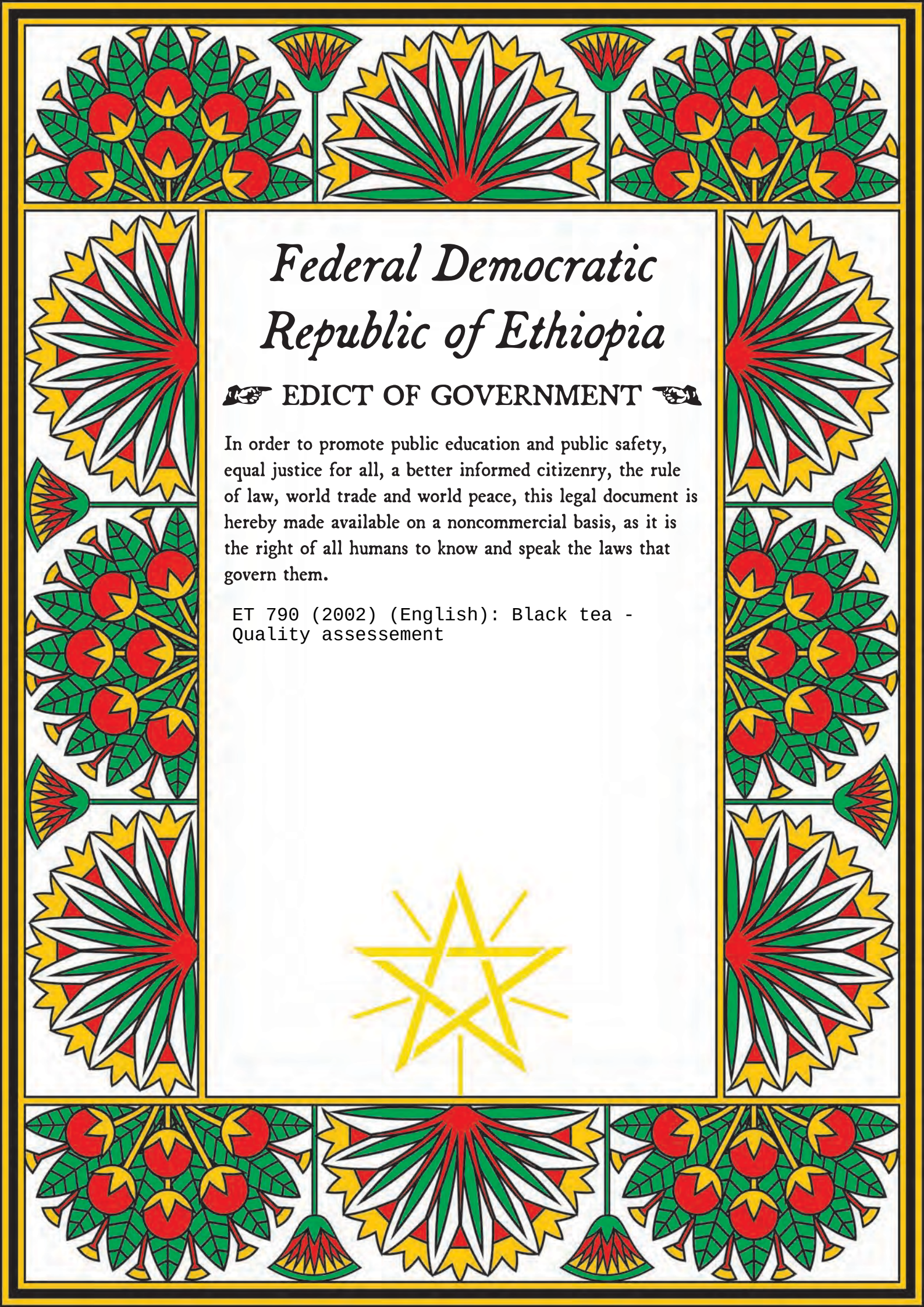




Federal Democratic Republic of Ethiopia

👤 EDICT OF GOVERNMENT 👤

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ET 790 (2002) (English): Black tea -
Quality assesement



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**ETHIOPIAN
STANDARD**

ES 790:2002

(Reaffirmed:2012)

First edition

Black tea - Quality assesement

ICS: 67.140.10

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Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Coffee and Tea (TC 29) and published by the Ethiopian Standards Agency (ESA).

The standard is a reaffirmation for reprint of the Ethiopian Standard ES 790:2002, Black tea - Quality assessment, with some editorial changes without altering the technical contents in the former text.

Black tea — Quality assesement

1 Scope

This Ethiopian Standard specifies procedures for a black tea quality assesement during black tea reception from the primary manufacturing plants, procedures may include sampling, determination of physical defects, marking, and determination of defect categories.

2 Normative references

The following Ethiopian Standards contain provisions, which, through reference in this text constitute provisions of this Ethiopian Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this Ethiopian Standard are encouraged to investigate the possibilities of applying the most recent editions of the Ethiopian Standards indicated below. Registers of currently valid standards are maintained in the Ethiopian Standards Agency (ESA).

ES 791 2002, *Black tea –Quality classification*.

ES ISO 1573, *Black tea – Determination of loss in mass at 103 °C*.

ES ISO 1839, *Green coffee – Sampling*.

ES ISO 6078, *Black tea – Vocabulary*.

3 Definitions

Definitions described in ES ISO 6078 shall apply.

4 Procedures

4.1 Sampling

Sampling shall be done in accordance with to ES ISO 1839.

4.2 Moisture determination

Moisture content of the sample shall be in the range between 3% to 5% and shall be determined in accordance with ES ISO 1573.

4.3 Physical examination

4.3.1 Appearance

Appearance is used as one of the criteria in assessing black tea quality, primarily because it gives an idea of the standard of manufacture, important dry leaf appearances are Blackish, Brown, curly, flaky, even or mixed (fiber or stock) which attribute to the quality of black tea. These shall be considered during quality assesement and import export classification of black tea as per ES 791.

4.3.2 Olfactory /odour/ examination

Good quality black tea should be free from any foreign odour. However due to faulty storage and handling few malodourous instances might occur. The level of occurrence in this case is described as clean, slightly clean, moderate stale and tainted in decreasing order of value

<u>Odour</u>	<u>Evaluation marks</u>
Clean	10
Slightly clean	8
Moderate	5
Stale	1
Tainted	0

4.3.3 Black tea defects and defect categories black tea should be free from any foreign matter. Also fragments of tea leaf, fiber, stalk, fluff tea, dust other than dry tea leaf are considered as defects. Due to lack of factory hygiene and poor inspection, some foreign matter such as dust, chaffs, earth, stone, insect fragment, metallic materials, in few cases may also be found mixed with sound dry leaf.

Table 1 Black tea defects and defect points of different grades*

Defects	Defect point
Physical defects	
1 Black tea	
1.1 Fibery	
1.1.1 Very few	1
1.1.2 Few	2
1.1.3 Some	3
1.2 Stalky	
1.2.1 Very few	1
1.2.2 few	2
1.2.3 some	3
1.3 Tea dust	
1.3.1 Very few	1
1.3.2 few	2
1.3.3 some	3
2 Foreign mater	
2.1 Very few	13
2.2 Few	15
2.3 Some	20
3 Foreign odour	
3.1 Slightly	13
3.2 Moderate	15
3.3 Stale	18
3.4 Tainted	20

* Grades in the CTC manufacture and these.

Include:

BOP – Broken Orange Pekoe

BP – Broken Pekoe

PF – Pekoe Fannings

PD – Pekoe Dust

D – Dust

F – Fanning

BMF – Broken Mixed Fanning

CTC

Fanning

Remark: - Earth (soil)
 Stone
 Insect fragment
 Metallic material
 Dust

4.3.3 Defect categories

Black tea samples are categorized as A, B, C, D and E according to the level of presence of defects which would be expressed by the sum of defect points as in table 1.

1. Category A if the defect point is ≤ 5
2. Category B if the defect point is 6-8
3. Category C if the defect point is 9-11
4. Category D if the defect point is 2-13
5. Category E if the defect point is ≥ 14 (Reject)

Note:- $\leq$ less than or equal to
 $\geq$ greater than or equal to

Table 2 Defect categories and evaluation

Note – Each defect category shall correspond to its specific evaluation marks as in the following.

Defect category	Corresponding evaluation mark
1. Category A	10
2. Category B	8
3. Category C	5
4. Category D	3
5. Category E	1

4.3.4 Size grade evaluation

Black tea grades in Ethiopia are usually broken peakoe, Broken, fannings and dust however the following size grades with their corresponding evaluation marks shall be considered.

Table 3 Black tea size grades and evaluation marks

Sizes grade	Corresponding evaluation marks
1. Peak 2mm	5
2. $> 1.4 \text{ mm} < 2 \text{ mm}$	3
3. $> 1 \text{ mm} < 1.4 \text{ mm}$	2
4. $> 710 \text{ mm} < 1 \text{ mm}$	1
5. $> 150 \text{ mm} < 355 \text{ mm}$	0

Note:- “ $<$ ” is less than
 and “ $>$ ” is greater than

5 Quality assessment result

Quality assessment results shall be defined in accordance with tables 1 & 2 during reception of primary grades BOP, BP, PF, PD and D and negotiations of prices can proceed between buyer and saler on the basis of defect category. Final quality classifications are done according to ES 791 in which over all quality is expressed by physical evaluation of dry leaf, infused leaf, chemical evaluation and organoleptic evaluation.



Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010. ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1970.

ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes.

Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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International Involvement

ESA, representing Ethiopia, is a member of the International Organization for Standardization (ISO), and Codex Alimentarius Commission (CODEX). It also maintains close working relations with the international Electro-technical Commission (IEC) and American Society for Testing and Materials (ASTM). It is a founding member of the African Regional Organization for standardization (ARSO).

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